

Application No: 10/073,821
Amendment dated 08/28/06

Remarks

Applicant respectfully requests reconsideration of the present application and entry of the preceding amendments to the claims in view of the following remarks.

Although claims 1-18, 20, and 22-100 are pending in this application, claims 1-14, 27-55, 77-84, and 91-100 were restricted and are withdrawn from consideration. Hence, only claims 15-18, 20, 22-26, 56-76, and 85-90 remain at issue. Of these remaining claims, claims 15-18, 20, and 22-26 have been allowed, claims 56-62, 66-76, 85-86, and 88-89 stand rejected, and 63-65, 87, and 90 are objected to.

Applicant has amended claims 56, 66, 85, and 90 as shown above, to further clarify and define Applicant's invention and distinguish it over the prior art of record to place the claims in condition for allowance. The amendments have the effect of narrowing the issues for consideration by the Examiner. These amendments were not earlier presented prior to the final Office Action because claims 56-100 were added by the previous amendment and were first rejected in the final Office Action. Entry and consideration of the foregoing amendments, as improving the form of this application, are solicited.

Regarding the amendments made to the claims, the word "major" was added in both independent claims 56 and 85 to better define the portion of the receiver structure that is in direct contact with the container. The word "liquid" was added in the preamble of claim 85 to further define the contents of the container. Claim 66 was amended to clarify that the inner space can be configured to "substantially surround" the container. Dependent claim 90 was corrected, since the language "rotating means" is not in its parent claim. The language "repeatedly rotating" and "continuously rotating" and "circulated by the rotation" added to claims 56 and 85 further clarify how the invention functions to rapidly chill the liquid contents of a container. All of these amendments are supported in the specification and/or claims as originally filed. No new matter has been added.

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Election / Restrictions

In Paragraph 1 of the Office Action, the Examiner stated that newly submitted claims 73-84 [sic, 77-84] and 91-100 are directed to inventions that are independent or distinct from the invention originally claimed because they include limitations distinct from and not presented in the previously elected claims 15-26. Therefore, the Examiner has constructively withdrawn claims 77-84 and 91-100 from further consideration in this application. Applicant does not agree with this restriction and the constructive withdrawal of these claims. However, Applicant will not argue this point at this time in an effort to obtain allowance of the elected claims.

35 U.S.C. §102 Rejections

In Paragraphs 2 and 3 of the Office Action, the Examiner has rejected claims 56-62, 66-70, and 72-76 under 35 U.S.C. §102 as being anticipated by, or in the alternative, under 35 U.S.C. §103(a), as obvious over, Christensen (U.S. Patent No. 2,028,825). The Examiner stated that Christensen discloses a service container comprising a block, an interior cavity 10, an inner space 8, a housing 4, 4a, rotating means 23, and the cooling liquid in interior cavity is not in direct contact with the container in the inner space 8. With respect to claim 62, the Examiner stated that the inner space can have a container having different shapes as long as the space is able to have the container stored. Applicant respectfully traverses this rejection with respect to the claim 56 as previously presented, and further with respect to claim 56 as presently amended.

Christensen discloses a service container used by sporting event vendors for maintaining ice cream or other articles of refreshments at a desired low temperature. The Christensen device includes an outer casing 2 having an inner casing 7 for providing a chamber 8 for accommodating a suitable refrigerant or cooling agent such as dry ice. A series of containers 9 forming separate compartments 10 provide storage space for the articles to be dispensed. The container may be rotated by the vendor so that any one article in any compartment may readily be withdrawn when required.

On the other hand, Applicant's invention as recited in claim 56 as previously presented, is directed toward a liquid cooler for rapidly chilling liquid contents of a container, such as a

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beverage can or bottle. Christensen does not teach or suggest that his ice cream dispenser device could be used to rapidly chill the liquid contents of a container. Christensen only teaches that his device is useful for ice cream "or other articles of refreshment". Anyone skilled in the art can readily appreciate that the Christensen service container is not intended to dispense liquid refreshments such as beverages in solid containers, as it would not be very efficient to put beverage containers in the compartments 10. It would be much simpler and more efficient to just put beverage containers in an ice chest surrounded by ice. However, the Christensen service container is well-suited for ice cream, since the ice cream resides in separate chambers that would not crush or distort the ice cream container, such as an ice cream cone. When an ice cream article is placed in the Christensen compartment, it is substantially surrounded by air that is maintained at a cool temperature by the dry ice in the central chamber.

Furthermore, Applicant has amended claim 56 to further distinguish the liquid cooler block from the ice cream compartments 10 of Christensen by requiring that the inner space of the block is configured such that the block is in "direct contact with a major portion of the outer surface of the container when the container is received in said inner space of the block." Even if one were to put a typical beverage container in the ice cream compartment 10 of Christensen, that compartment would not directly contact a major portion of the outer surface of the container. Therefore, rapid cooling of the liquid contents of the container would not occur in the Christensen device. To the contrary, a major portion of the outer surface of the container would only be in contact with air, which would not serve the purpose of rapidly chilling the liquid contents of the container as recited by Applicant's claim 56. Hence, the service container of Christensen cannot anticipate or render obvious Applicant's invention as defined by claim 56, particularly as amended.

Still further, the fact that the Christensen device can be rotated has nothing to do with rapidly chilling the liquid contents of a container. It is clear that when the articles of ice cream, such as ice cream cones or sandwiches, are placed in the Christensen compartment 10, they would mostly be surrounded by air and would be tossed and inverted as the Christensen outer casing is rotated. Christensen teaches that the provision is made for rotating the container so that any article may be brought into registry with the access opening 11 on the top, whereby any article in

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any container may be withdrawn. It is not intended to be rotated to assist in the cooling process, and it is certainly not taught or suggested to circulate the liquid contents of a container to be chilled as the block and the container are repeatedly rotated, as recited by Applicant's amended claim 56.

Regarding claims 57-61, 66, and 76, the Examiner stated that a change in the shape of a prior art device is a design consideration within the skill of the art. Applicant submits that these claims are not simply a change in the shape of a prior art device. These dependent claims further define the structure of the inner space of the block to appropriately receive and contact differently shaped containers such that their contents may be rapidly chilled as the block and container are rotated. This is not taught or even contemplated by the Christensen reference, which is not concerned with contacting a major portion of the surface of a liquid container.

With respect to claims 67-70, the Examiner stated that the selection of known material based upon its suitability for the intended use is a design consideration within the skill of the art. Applicant respectfully submits that these dependent claims provide additional limitations of patentable significance when taken with their respective parent claims to further define the various characteristics and cooling properties of the block.

Therefore, the 35 U.S.C. §102/103 rejection of claims 56-62, 66-70, and 72-76 based on Christensen cannot be maintained in view of these reasons and the amendments made above. Allowance of these claims is respectfully requested.

35 U.S.C. §103 Rejections

In Paragraphs 4 and 5 of the Office Action, the Examiner has rejected claim 71 (which defines the rotating means of claim 56 as an electric motor) as being obvious over Christensen in view of Smith (U.S. Patent No. 4,549,409) or Bryant (U.S. Patent No. 4,164,851). The Examiner stated that although Christensen does not disclose a motor driven mechanism, Smith and Bryant disclose electric motors in the same field for the purpose of rotating containers, and it therefore

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would have been obvious to provide the apparatus of Christensen with an electric motor.
Applicant respectfully disagrees, as discussed below.

Similarly, in Paragraph 6 of the Office Action, the Examiner also has rejected claims 85-86 and 88-89 under 35 U.S.C. §102 as being anticipated by Christensen, or in the alternative, under 35 U.S.C. §103(a), as being obvious over Christensen in view of Smith or Bryant. The Examiner stated that Christensen discloses the invention substantially as claimed; but Christensen does not disclose a motor driven mechanism; that Smith and Bryant disclose electric motors in the same field of endeavor for the purpose of rotating containers; and that it would have been obvious to provide the device of Christensen with an electric motor in view of Smith or Bryant. Applicant also respectfully disagrees with this reasoning.

Applicant reiterates the discussions and reasoning set forth above regarding Christensen, which also apply to claims 71, 85-86, and 88-89, namely, that Christensen does not teach or suggest that his ice cream dispenser device could be used to rapidly chill the liquid contents of a container; that Christensen's compartment would not directly contact a major portion of the outer surface of the container; that rapid cooling of the liquid contents of the container would not occur in the Christensen device; and that rotating the Christensen device has nothing to do with rapidly chilling the liquid contents of a container. The addition of Smith or Bryant does not solve these problems.

Smith discloses a rapid cooler for beverages wherein the cylindrical container 48 is rotated about its major longitudinal axis in an ice-filled tray 24, as shown in Figure 1 of Smith. The Smith invention is directed toward a slidable mechanism 46 for gripping the ends of the container to accommodate containers of different heights.

Bryant discloses another device for rapidly cooling a canned or bottled beverage using two foam-covered rollers 46 to support the cylindrical beverage container 32 as it is rotated. The Bryant cooling compartment 26 includes an elongated strip 36 of clear plastic material angularly disposed downwardly and inwardly, wherein 4 to 6 ice cubes are placed between the strip and the beverage container and held in place by the force of gravity.

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Neither Smith nor Bryant teach or suggest the use of a block or receiver having an inner space configured to at least partially surround the container and to contact at least a portion of its outer surface, wherein the cooling substance DOES NOT directly contact the container as recited in Applicant's claims 56 and 85. In both Smith and Bryant, the cooling substance DOES directly contact the outer surface of the container. This is disadvantageous for several reasons, including that the container surface will be wet from the melted ice, the label or printing on the container surface could be damaged or blurred or soiled, and the container may be more difficult to handle. These problems are avoided by Applicant's claimed invention. It is clear that Smith and Bryant do not implement a container receiver as a heatsink to cool the liquid contents of the container as claimed by Applicant.

Any proposed combination of Christensen's device with an electric motor from Smith or Bryant (1) is improper, (2) would not serve any purpose, and (3) would actually be counterproductive.

First, the Examiner has not provided any evidence of a suggestion or motivation to combine the references to provide the Christensen device with an electric motor to rotate the ice cream service container. In order to establish a prima facie case of obviousness, there must be actual evidence of a suggestion or motivation to modify a prior art reference or to combine two prior art references. Aside from the language of Applicant's own claims, the Examiner has provided no such evidence. Applicant submits that the general statement that the references are in "the same field of endeavor" does not meet this burden.

Second, any such combination will not serve any meaningful purpose. Christensen teaches that his service container is rotated by hand so that any article may be aligned with the access opening to be withdrawn. Providing the Christensen device with an electric motor certainly does not assist in the cooling process, or improve the desired accessibility of the ice cream. It also does not circulate the liquid contents of the container to be chilled, as recited by Applicant's amended claims 56 and 85.

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Third, such a combination would be counterproductive. To provide Christensen with an electric motor to rotate the container to dispense the ice cream would require fairly sophisticated control electronics to ensure proper alignment, which can easily be done by hand rotation. Furthermore, it is clear that the articles of ice cream loosely disposed in the compartments would be more violently tossed and damaged if the Christensen outer casing were rotated repeatedly by an electric motor.

Therefore, any proposed combination of Christensen with Smith or Bryant cannot render obvious Applicant's independent claims 56 and 85. Moreover, Applicant's dependent claims further define and distinguish Applicant's invention over any such combination of prior art references.

Allowable Subject Matter

In Paragraph 7 of the Office Action, the Examiner stated that claims 15-18, 20, and 22-26 are allowed.

In Paragraph 8, the Examiner has stated that claims 63-65, 87, and 90 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant submits that these claims are now allowable, in view of the amendments made above to the base claims 56 and 85, and in view of the reasons set forth above.

Conclusion

As can now be seen, none of the prior art, either alone or in combination, provides a device for rapidly chilling the liquid contents of a container by receiving the container such that the receiver directly contacts a major portion of the outer surface of the container while the cooling substance located inside the receiver acts as a heatsink to chill the liquid contents of the container by heat transfer from the liquid contents to the receiver while the container is being repeatedly rotated. In this way, the advantages of the present invention are accomplished without encountering the disadvantages of the prior art.

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Applicant believes that the present application is now in condition for allowance. Favorable reconsideration and allowance of the claims as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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